



Amino Acid Sequence of the C2B8 Heavy Chain

MGWSLILLFLVAVATRVLSQVQLQQPGAELVKPGASVKMSCKASGYTFTSYNM
HWVKQTPGRGLEWIGAIYPGNGDTSYNQKFKGKATLTADKSSSTA YMQLSSLTS
EDSAVYYCARSTYYGGDWYFNVWGAGTTVTVSAASTKGPSVFPLAPSSKSTSG
GTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSS
LGTQTYICNVNHKPSNTKVDKKAEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKP
KDTLMISR TPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTY
RVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPS
RDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSK
LTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK*

Fig. 1A

Amino Acid Sequence of the C2B8 Domain Deleted Heavy Chain

MGWSLILLFLVAVATRVLSQVQLQQPGAELVKPGASVKMSCKASGYTFTSYNM
HWVKQTPGRGLEWIGAIYPGNGDTSYNQKFKGKATLTADKSSSTA YMQLSSLTS
EDSAVYYCARSTYYGGDWYFNVWGAGTTVTVSAASTKGPSVFPLAPSSKSTSG
GTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSS
LGTQTYICNVNHKPSNTKVDKKEPKSCDKTHTCPPCPGQPREPQVYTLPPSRDE
LTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTV
DKSRWQQGNVFCFSVMHEALHNHYTQKSI SLSPGK*

Fig. 1B



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TITLE: ENGINEERED TETRAVALENT ANTIBODIES AND METHODS OF USE

PILLSBURY WINTHROP LLP
MCLEAN, VIRGINIA

Nucleotide Sequence of the C2B8 Heavy Chain

ATGGGTTGGAGCCTCATCTTGCTCTTCTTGTCGCTGTTGCTACGCGTGTCTGTCCC
AGGTACAACCTGCAGCAGCCTGGGGCTGAGCTGGTGAAGCCTGGGGCCTCAGTGAAG
ATGTCCTGCAAGGCTTCTGGCTACACATTTACCAGTTACAATATGCACTGGGTAAAA
CAGACACCTGGTTCGGGGCCTGGAATGGATTGGAGCTATTTATCCCGGAAATGGTGAT
ACTTCCTACAATCAGAAAGTTCAAAGGCAAGGCCACATTGACTGCAGACAAATCCTCC
AGCACAGCCTACATGCAGCTCAGCAGCCTGACATCTGAGGACTCTGCGGTCTATTAC
TGTGCAAGATCGACTTACTACGGCGGTGACTGGTACTTCAATGTCTGGGGCGCAGGG
ACCACGGTCACCGTCTCTGCAGCTAGCACCAAGGGCCCCATCGGTCTTCCCCCTGGCA
CCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCTGTGGAACCTCAGGCGCCCTGACCAGCGGCGTG
CACACCTTCCCGGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGA
CCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAAAGCAGAGCCCAAATCTTGTGACAAAACCTCAC
ACATGCCCCACCGTGCCCAGCACCTGAACTCTGGGGGGACCGTCAGTCTTCTCTTCC
CCCCAAAACCCAAGGACACCCTCATGATCTCCCGGACCCCTGAGGTCACATGCGTGG
TGGTGGACGTGAGCCACGAAGACCCTGAGGTCAAGTCAACTGGTACGTGGACGGC
GTGGAGGTGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTA
CCGTGTGGTCAGCGTCTCACCCTCTGCACAGGACTGGCTGAATGGCAAGGAGTA
CAAGTGCAAGGTCTCCAACAAAGCCCTCCAGCCCCATCGAGAAAACCATCTCCAA
AGCCAAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATCCCGGGATG
AGCTGACCAAGAACCAGGTCAGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCG
ACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACCTACAAGACCACG
CCTCCCGTGTCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTCACCGTGGACA
AGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGC
ACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

Fig. 2A

Nucleotide Sequence of the C2B8 Domain Deleted Heavy Chain

ATGGGTTGGAGCCTCATCTTGCTCTTCTTGTCGCTGTTGCTACGCGTGTCTGTCCC
AGGTACAACCTGCAGCAGCCTGGGGCTGAGCTGGTGAAGCCTGGGGCCTCAGTGAAG
ATGTCCTGCAAGGCTTCTGGCTACACATTTACCAGTTACAATATGCACTGGGTAAAA
CAGACACCTGGTTCGGGGCCTGGAATGGATTGGAGCTATTTATCCCGGAAATGGTGAT
ACTTCCTACAATCAGAAAGTTCAAAGGCAAGGCCACATTGACTGCAGACAAATCCTCC
AGCACAGCCTACATGCAGCTCAGCAGCCTGACATCTGAGGACTCTGCGGTCTATTAC
TGTGCAAGATCGACTTACTACGGCGGTGACTGGTACTTCAATGTCTGGGGCGCAGGG
ACCACGGTCACCGTCTCTGCAGCTAGCACCAAGGGCCCCATCGGTCTTCCCCCTGGCA
CCCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGAC
TACTTCCCCGAACCGGTGACGGTGTCTGTGGAACCTCAGGCGCCCTGACCAGCGGCGTG
CACACCTTCCCGGCTGTCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGA
CCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGC
CCAGCAACACCAAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAACCTCAC
ACATGCCCCACCGTGCCCAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCA
TCCCGGGATGAGCTGACCAAGAACCAGGTGACCTGACCTGCCTGGTCAAAGGCTTC
TATCCCGGATGAGCTGACCAAGAACCAGGTGAGGAGCAATGGGCAGCCGGAGAACAACCT
CAAGACCACGCTCCCGTGTCTGGACTCCGACGGCTCCTTCTTCTCTACAGCAAGCTC
ACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCTCCGTGATGCAT
GAGGCTCTGCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

Fig. 2B



Nucleotide Sequence of the C2B8 Light Chain

ATGGATTTTCAGGTGCAGATTATCAGCTTCCTGCTAATCAGTGCTTCAGTCAT
AATGTCCAGAGGACAAATTGTTCTCTCCCAGTCTCCAGCAATCCTGTCTGCAT
CTCCAGGGGAGAAAGGTCACAATGACTTGCAAGGGCCAGCTCAAGTGTAAGTTA
CATCCACTGGTTCAGCAGAAGCCAGGATCCTCCCCCAAACCCTGGATTTAT
GCCACATCCAACCTGGCTTCTGGAGTCCCTGTTTCGCTTCAGTGGCAGTGGGTC
TGGGACTTCTTACTCTCTCACAATCAGCAGAGTGGAGGCTGAAGATGCTGCC
ACTTATTACTGCCAGCAGTGGACTAGTAACCCACCCACGTTCCGAGGGGGGA
CCAAGCTGGAAATCAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCCCG
CCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGCCTGCTGAA
TAACTTCTATCCCAGAGAGGGCCAAAGTACAGTGGAAAGGTGGATAACGCCCTC
CAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGCAAGGACAGC
ACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGACTACGAGAAA
CACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCTCGCCCGTCA
CAAAGAGCTTCAACAGGGGAGAGTGTTGA

Fig. 3A

Amino Acid Sequence of the C2B8 Light Chain

MDFQVQIISFLLISASVIMSRGQIVLSQSPAILSASPGEKVTMTCRASSSVSYIHW
QQKPGSSPKPWIYATSNLASGVPVRFSGSGSGTSYSLTISRVEAEDAATYYCQQW
TSNPPTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQ
WKVDNALQSGNSQESVTEQDSKDSYSTLSSTLTLSKADYEKHKVYACEVTHQG
LSSPVTKSFNRGEC*

Fig. 3B



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MCLEAN, VIRGINIA

Amino Acid Sequence of the HuCC49 Domain Deleted Heavy Chain

MGWSLILLFLVAVATRVLSQVQLVQSGAEVVKPGASVKISCKASGYTFTDHAH
WVKQNPGRLEWIGYFSPGNDDFKYNERFKGKATLTADTSASTAYVELSSLRSE
DTAVYFCTRSLNMAYWGQGLVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCL
VKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSTLGTQTYIC
NVNHNKPSNTKVDKKVEPKSCDKTHTCPPCPGQPREPQVYTLPPSRDELTKNQVS
LTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTVDKSRWQ
QGNVFSCSVMHEALHNHYTQKSLSLSPGK*

Fig. 4A

Nucleotide Sequence of the HuCC49 Domain Deleted Heavy Chain

ATGGGTTGGAGCCTCATCTTGCTCTTCCTTGTCGCTGTTGCTACGCGTGTCTG
TCCCAGGTCCAGCTGGTGCAGTCCGGCGCTGAGGTGGTGAAACCTGGGGCTT
CCGTGAAGATTTCTGCAAGGCAAGCGGCTACACCTTCACTGATCACGCAAT
CCACTGGGTGAAACAGAATCCTGGACAGCGCCTGGAGTGGATTGGATATTTT
TCTCCCGGAAACGATGATTTTAAGTACAATGAGAGGTTCAAGGGCAAGGCCA
CACTGACTGCAGACACATCTGCCAGCACTGCCTACGTGGAGCTCTCCAGCCT
GAGATCCGAGGATACTGCAGTGTACTTCTGCACAAGATCCCTGAATATGGCC
TACTGGGGACAGGGAACCTGGTCAACCGTCTCCAGCGCTAGCACCAAGGGCC
CATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAGCACCTCTGGGGGACAGC
GGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCTG
TGGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGGCTGTCCTAC
AGTCCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAG
CTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACC
AAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATGCC
CACCGTGCCAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGCCCCCATC
CCGGGATGAGCTGACCAAGAACCAGGTGAGCCTGACCTGCCTGGTCAAAGGC
TTCTATCCCAGCGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGA
ACAACCTACAAGACCACGCCTCCCGTGCTGGACTCCGACGGCTCCTTCTTCTC
TACAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAGCAGGGGAACGTCTTCT
CATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAGCCT
CTCCCTGTCTCCGGGTAATGA

Fig. 4B



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MCLEAN, VIRGINIA

Amino Acid Sequence of the HuCC49 Light Chain

MDSQAQVLMLLLWVSGTCGDIVMSQSPDSLAVSLGERVTLNCKSSQSLLYSGN
QKNYLA WYQQKPGQSPKLLIYWASARESGVPDRFSGSGSGTDFTLTISVQAED
VAVYYCQQYYSYPLTFGAGTKLELKRITVAAPSVFIFPPSDEQLKSGTASVVCLLN
NFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSTLSSTLTLSKADYEKHK
VYACEVTHQGLSSPVTKSFNRGEC*

Fig. 5A

Nucleotide Sequence of the HuCC49 Light Chain

ATGGATAGCCAGGCCAGGTGCTCATGCTCCTGCTGCTGTGGGTGAGCGGCA
CATGCGGCGACATCGTGATGAGCCAGTCTCCAGACTCCCTGGCCGTGTCCCT
GGGCGAGAGGGTGACTCTGAATTGCAAGTCCAGCCAGTCCCTGCTCTATAGC
GGAAATCAGAAGAACTATCTCGCCTGGTATCAGCAGAAACCAGGGCAGAGC
CCTAAACTGCTGATTTACTGGGCATCCGCTAGGGAATCCGGCGTGCCTGATCG
CTTCAGCGGCAGCGGATCTGGGACAGACTTCACTCTGACAATCAGCAGCGTG
CAGGCAGAAGACGTGGCAGTCTATTATTGTCAGCAGTATTATAGCTATCCCT
CACATTCGGCGCTGGCACCAAGCTGGAAGTAAACGTACGGTGGCTGCACCA
TCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTC
TGTTGTGTGCCTGCTGAATAACTTCTATCCAGAGAGGCCAAAGTACAGTGG
AAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGC
AGGACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCA
AAGCAGACTACGAGAAACACAAAGTCTACGCCTGCGAAGTACCCCATCAGG
GCCTGAGCTCGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTGA

Fig. 5B



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MCLEAN, VIRGINIA

Amino Acid Sequence of C5E10 Heavy Chain

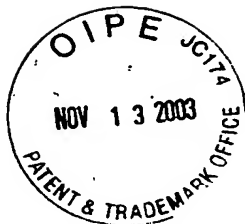
MAVLALLFCLVTFPSCILSQVQLKESGPGLVAPSQSLSTCTVSGFSLTDYGVNWV
RQPPGKGLEWLGMWDNGRTDYN SALKSRLSINKDNSKSQVFLKMTSLQTDDTA
RYYCARCYYGSSPYFDYWGGQTTLTVSSASTKGPSVFPLAPSSKSTSGGTAALGC
LVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYIC
NVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRT
PEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVL
HQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVS
LTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQ
GNVFSCSVMHEALHNHYTQKSLSLSPGK

Fig. 6A

Amino Acid Sequence of C5E10 Domain Deleted Heavy Chain

MAVLALLFCLVTFPSCILSQVQLKESGPGLVAPSQSLSTCTVSGFSLTDYGVNWV
RQPPGKGLEWLGMWDNGRTDYN SALKSRLSINKDNSKSQVFLKMTSLQTDDTA
RYYCARCYYGSSPYFDYWGGQTTLTVSSASTKGPSVFPLAPSSKSTSGGTAALGC
LVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLGTQTYIC
NVNHKPSNTKVDKKVEPKSCDKTHTCPPCPGQPREPQVYTLPPSRDELTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQ
GNVFSCSVMHEALHNHYTQKSLSLSPGK

Fig. 6B



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USE
PILLSBURY WINTHROP LLP
MCLEAN, VIRGINIA

Nucleotide Sequence of C5E10 Heavy Chain

ATGGCTGTCTTAGCGCTACTCTTCTGCCTGGTAACATTCCCAAGCTGTATCCTTTCCC
AGGTGCAGCTGAAGGAGTCAGGACCTGGCCTGGTGGCGCCCTCACAGAGCCTGTCCA
TCACATGCACCGTCTCAGGGTTCTCATTAACCGACTATGGTGTAAACTGGGTTTCGCCA
GCCTCCAGGAAAGGGTCTGGAGTGGCTTGAATGATATGGGATAATGGAAGAACAG
ACTATAATTAGCTCTCAAATCCAGACTGAGCATCAACAAGGACAACCTCCAAGAGCC
AAGTTTTCTTAAAAATGACCAGTCTGCAAACCTGATGACACAGCCAGGTACTACTGTG
CCAGATGCTATTACGGTAGTAGCCCTTACTTTGACTACTGGGGCCAAGGCACCACTC
TCACCGTCTCCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTC
CAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCC
CGAACCGGTGACGGTGTCTGTGGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTT
CCCGGCTGTCCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCC
TCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCAGCAAC
ACCAAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATGCCC
ACCGTGCCAGCACCTGAACCTCTGGGGGGACCGTCAGTCTTCTCTTCCCCCCTTCC
ACCAAGGACACCTCATGATCTCCCGGACCCCTGAGGTCAATGCGTGGTGGTGGA
CGTGAGCCACGAAGACCTGAGGTCAAGTTCAACTGGTACGTGGACGGCGTGGAGG
TGCATAATGCCAAGACAAAGCCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTG
GTCAGCGTCTCACCCTGTCACCAAGGACTGGCTGAATGGCAAGGAGTACAAGTGC
AAGGTCTCCAACAAAGCCCTCCAGCCCCCATCGAGAAAACCATCTCCAAGGCCAAA
GGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCATCCCGGGATGAGCTGACC
AAGAACCAGGTGACCTGACCTGCCTGGTCAAAGGCTTCTATCCAGCGACATCGCC
GTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCAAGCCTCCCGT
GCTGGACTCCGACGGCTCCTTCTCTCTACAGCAAGCTCACCGTGGACAAGAGCAG
GTGGCAGCAGGGGAACGTCTTCTCATGTCTCCGTGATGCATGAGGCTCTGCACAACCA
CTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

Fig. 7A

Nucleotide Sequence of C5E10 Domain Deleted Heavy Chain

ATGGCTGTCTTAGCGCTACTCTTCTGCCTGGTAACATTCCCAAGCTGTATCCTTTCCC
AGGTGCAGCTGAAGGAGTCAGGACCTGGCCTGGTGGCGCCCTCACAGAGCCTGTCCA
TCACATGCACCGTCTCAGGGTTCTCATTAACCGACTATGGTGTAAACTGGGTTTCGCCA
GCCTCCAGGAAAGGGTCTGGAGTGGCTTGAATGATATGGGATAATGGAAGAACAG
ACTATAATTAGCTCTCAAATCCAGACTGAGCATCAACAAGGACAACCTCCAAGAGCC
AAGTTTTCTTAAAAATGACCAGTCTGCAAACCTGATGACACAGCCAGGTACTACTGTG
CCAGATGCTATTACGGTAGTAGCCCTTACTTTGACTACTGGGGCCAAGGCACCACTC
TCACCGTCTCCTCAGCTAGCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTC
CAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCC
CGAACCGGTGACGGTGTCTGTGGAACCTCAGGCGCCCTGACCAGCGGCGTGCACACCTT
CCCGGCTGTCCTACAGTCTCAGGACTCTACTCCCTCAGCAGCGTGGTGACCGTGCCC
TCCAGCAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCAGCAAC
ACCAAGGTGGACAAGAAAGTTGAGCCCAAATCTTGTGACAAAACCTCACACATGCCC
ACCGTGCCAGGGCAGCCCCGAGAACCACAGGTGTACACCTGCCCCCATCCCGGGA
TGAGCTGACCAAGAACCAGGTGACCTGACCTGCCTGGTCAAAGGCTTCTATCCAG
CGACATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGAACAACTACAAGACCA
CGCCTCCCGTGTCTGGACTCCGACGGCTCCTTCTCTCTACAGCAAGCTCACCGTGG
CAAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGTCTCCGTGATGCATGAGGCTCT
GCACAACCACTACACGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

Fig. 7B



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Nucleotide Sequence of C5E10 Light Chain

ATGGGCATCAAGATGGAGTCACATTCTCTGGTCTTTGTATACATGTTGCTGTG
GTTGTCTGGTGTGGAAGGAGACATTGTGATGATCCAGTCTCACAAATTCATGT
CCACATCAGTAGGAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAGGATGT
GGGTACTGCTGTCGCCTGGTATCAACAGAAACCAGGACAATCTCCTAAACTA
CTGATTTACTGGTCATCCACCCGGCACACTGGAGTCCCTGATCGCTTCACAGG
CAGTGGATCTGGGACAGATTTCACTCTCACCATTAGCAATGTGCAGTCTGAA
GACTTGGCAGATTATTTCTGTGAGTTATATAGCAGCTATCCTCTCACGTTCCG
AGGGGGGACCAAGCTGGAAATCAAACGTACGGTGGCTGCACCATCTGTCTTC
ATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTG
CCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTGGAAAGGTGGAT
AACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAGC
AAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGAC
TACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCT
CGCCCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTGA

Fig. 8A

Amino Acid Sequence of C5E10 Light Chain

MGIKMESHSLVFVYMLLWLSGVEGDIVMIQSHKFMSTSVGDRV SITCKASQDVG
TAVAWYQQKPGQSPKLLIYWSSTRHTGVPDRFTGSGSGTDFTLTISNVQSEDLAD
YFCQLYSSYPLTFGGGTGLEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYP
REAKVQWKVDNALQSGNSQESVTEQDSKDSSTYSLSSTLTLSKADYEKHKVYAC
EVTHQGLSSPVTKSFNRGEC

Fig. 8B



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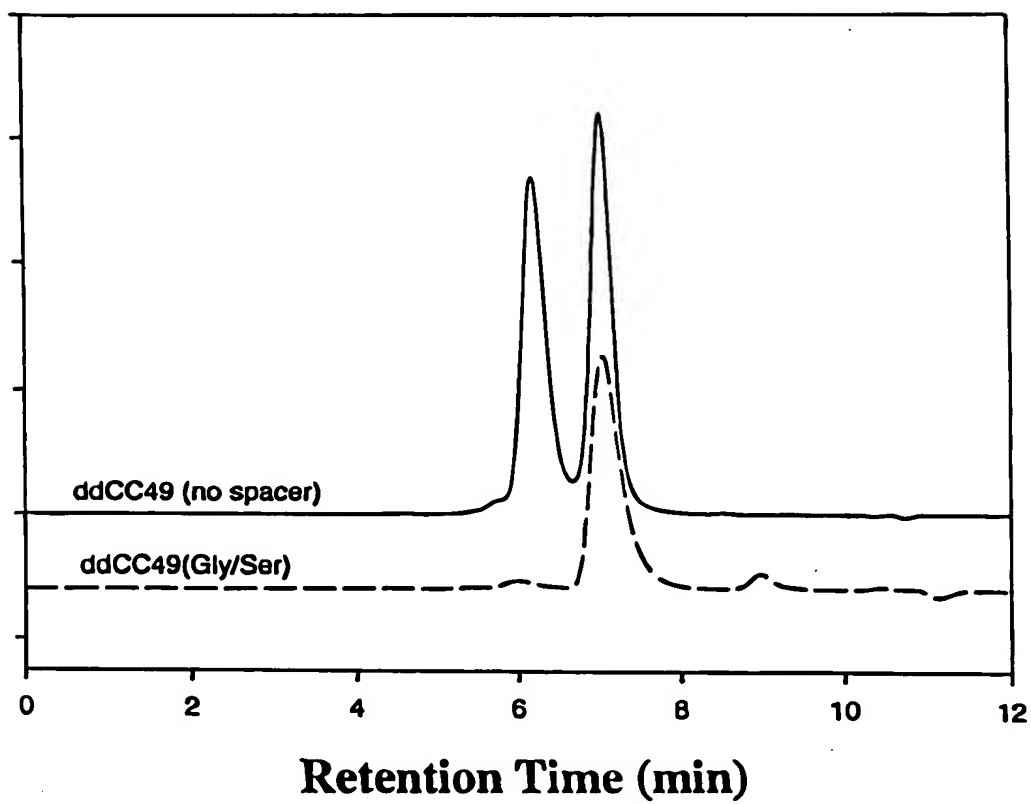


Fig. 9



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Legend:

- A: Run #: 1
B: Run #: 2
C: Run #: 3
- ddCC49
- D. Purified ddCC49 (240 kDa)
E. Purified ddCC49 (120 kDa)
F. ddCC49(Gly/Ser)

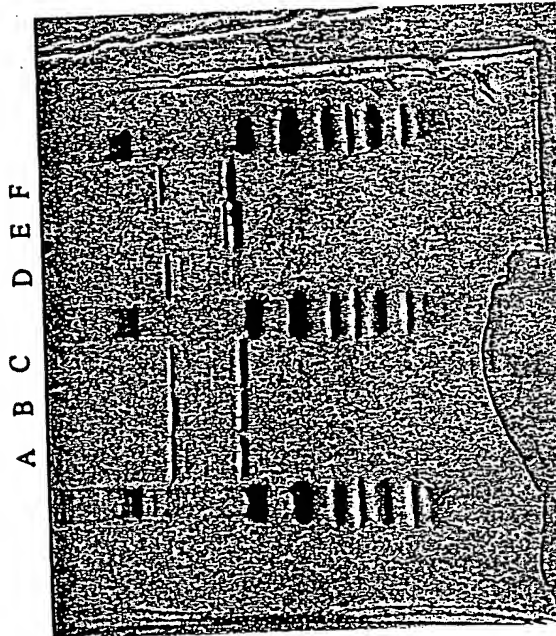


Fig. 10

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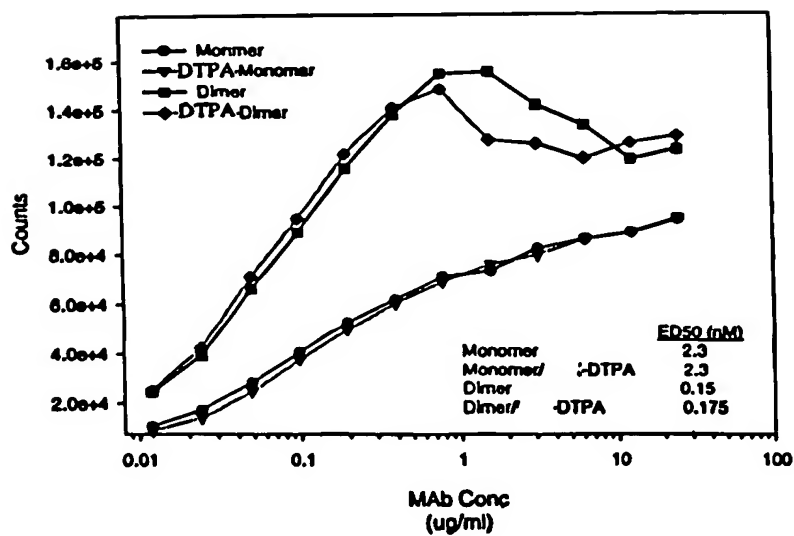
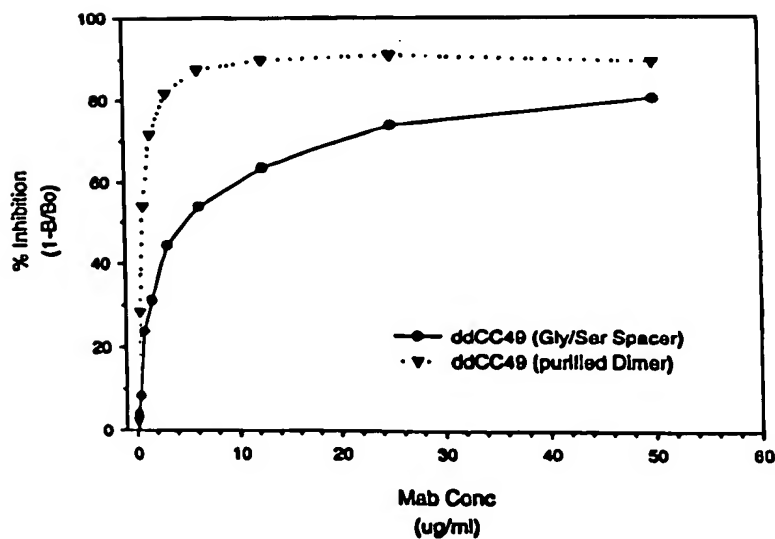


Fig. 11A





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Biodistribution of ^{111}In -ddCC49 (Gly/Ser) Spacer

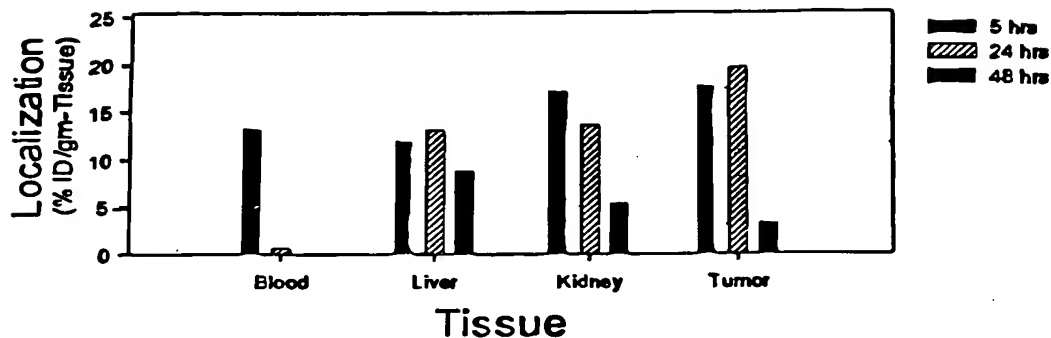


Fig. 12A

Biodistribution of ^{111}In -ddCC49, 120 kD Fraction

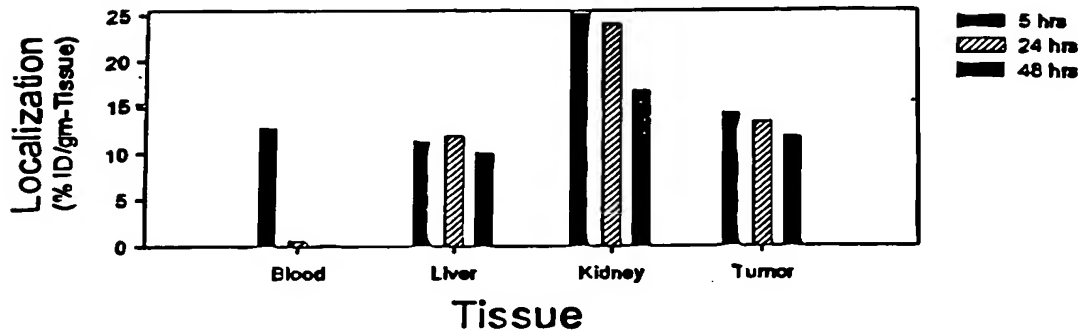


Fig. 12B

Biodistribution of ^{111}In -ddCC49, 240 kD Fraction

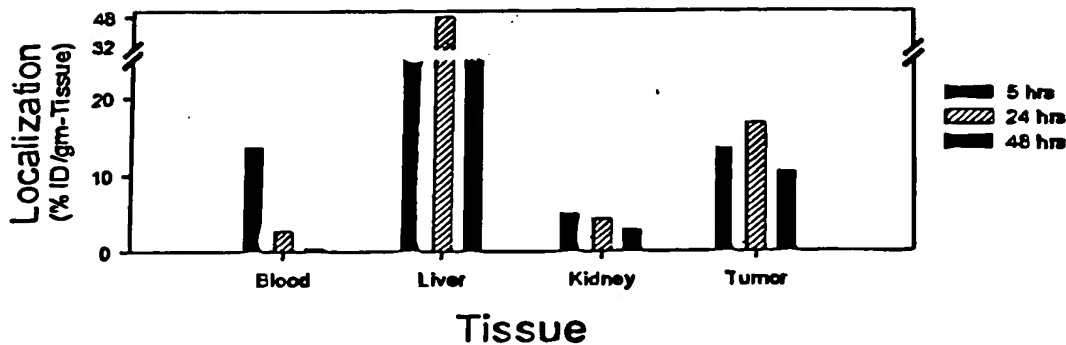


Fig. 12C



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PILLSBURY WINTHROP LLP
MCLEAN, VIRGINIA

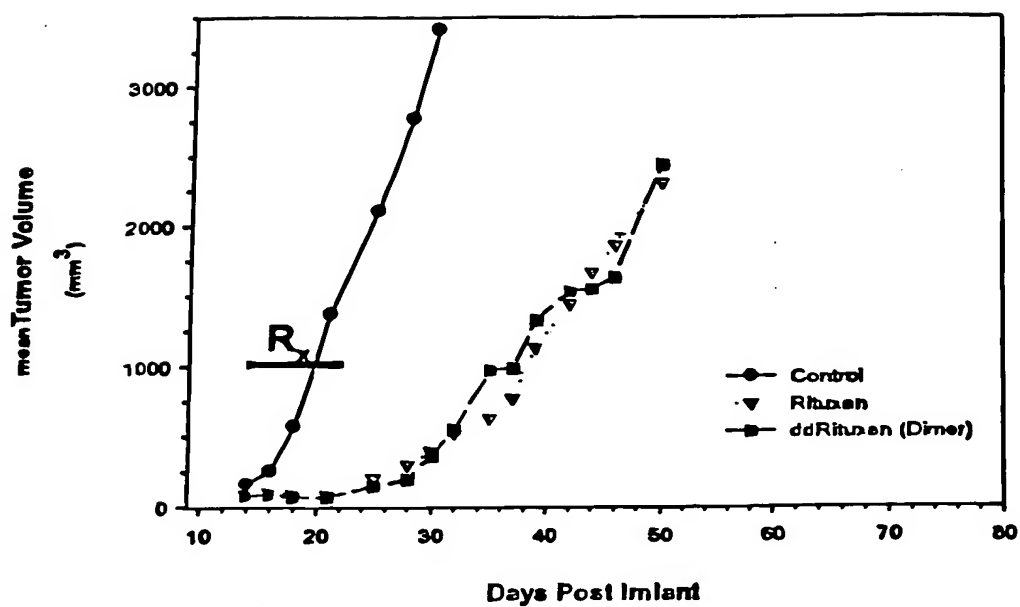


Fig. 13